Amendments to the Claims:

1. (Currently Amended) A process for isolating milk proteins from milk or whey comprising the following steps:

a) the milk or the whey is sterilized and defatted;

b) the milk fraction derived from step a) is passed over a cation-exchange resin conditioned in an elution column;

c) the fraction retained on the resin is eluted with an aqueous salt solution;

d) the eluate resulting from step c) is desalted and sterilized and wherein

α) the cation-exchange resin is a resin grafted onto strong acid functional groups;

~~the parameter BV denoting the ratio of the volume of raw material to the volume of wet resin in the column,~~

~~the parameter SV denoting the ratio of the rate of feeding the column to the volume of wet resin in the column,~~

~~the parameter LV denoting the ratio of the rate of feeding the column to the section of the column,~~

β) during step b), the binding parameters have the following values:

- $BV[[_f]]$ is between 50 and 400;
- $SV[[_f]]$ is between 2 and 40 $h^{-1}$;
- $LV[[_f]]$ is greater than or equal to 1 m/h and less than or equal to 5 m/h.

γ) during step c), the elution parameters have the following values:

- $BV[[_e]]$ is between 1.5 and 7;
- $LV[[_e]]$ is less than 1 m/h.

2. (Previously Presented) The process as claimed in claim 1, wherein the starting material is cows' milk.

3. (Previously Presented) The process as claimed in claim 1, wherein the starting material is a casein acid whey.

4. (Previously Presented) The process as claimed in claim 1, wherein the cation-exchange resin is a resin grafted by acid functional groups with a $pKa \leq 2$ having an ion-exchange capacity of between 200 and 1000 μE/ml.

5. (Previously Presented) The process as claimed in claim 4, wherein the resin is grafted by sulfonate salt or sulfonic acid functional groups.

6. (Previously Presented) The process as claimed in claim 5, wherein the resin is grafted by propyl sulfonate or propylsulfonic functional groups.

7. (Previously Presented) The process as claimed in claim 1, wherein the particle size of the resin is between 100 μm and 900 μm.

8. (Currently Amended) The process as claimed in claim 1, wherein during step b) of binding of the raw material, one or more of the following conditions are met:

- $BV[[_f]]$ is between 80 and 150;
- $SV[[_f]]$ is between 5 and 40 $h^{-1}$;
- $LV[[_f]]$ is between 3 and 4.3 m/h.

9. (Currently Amended) The process as claimed in claim 1, wherein the following conditions are met during step b):

- $BV[[_f]]$ is between 80 and 120;
- $SV[[_f]]$ is between 8 and 15 $h^{-1}$;
- $LV[[_f]]$ is between 3 and 4.8 m/h.

during step c):

- $BV[[_e]]$ is between 3 and 7;
- $LV[[_e]]$ is less than 1 m/h.

10. (Previously Presented) The process as claimed in claim 1, wherein during step b), the resin is conditioned in a column whose temperature is kept between 2 and 15°C.

11. (Currently Amended) The process as claimed in claim 1, wherein during step c) for elution of the bound proteins, at least one of the following conditions is met:

- $BV[[_e]]$ is between 3 and 5;
- $LV[[_e]]$ is less than 0.5 m/h.

12. (Previously Presented) The process as claimed in claim 1, wherein during step c), the resin is conditioned in a column whose temperature is kept between 2 and 15°C.

13. (Previously Presented) The process as claimed in claim 1, wherein the aqueous saline solution used for carrying out the invention is a solution of a chloride of an alkali metal chosen from K+, Na+, Ca+, Mg+.

14. (Previously Presented) The process as claimed in claim 12, wherein the aqueous saline solution is an aqueous sodium chloride solution.

15. (Previously Presented) The process as claimed in claim 14, wherein the aqueous saline solution has a concentration of between 2 and 25% by weight of salt per weight of liquid.

16. (Previously Presented) The process as claimed in claim 14, wherein the aqueous saline solution has an ionic strength of between 1 and 2 M.

17. (Previously Presented) The process as claimed in claim 1, wherein the pH of the aqueous saline solution for elution is between 6 and 7.

18. (Previously Presented) The process as claimed in claim 1, wherein the desalting is carried out by ultrafiltration and diafiltration.

19. (Previously Presented) The process as claimed in claim 18, wherein the ultrafiltration and diafiltration treatments are carried out until a permeate having a conductivity of less than 15 mS is obtained.

20. (Previously Presented) The process as claimed in claim 1, wherein the sterilization is carried out by microfiltration.

21. (Previously Presented) The process as claimed in claim 1, wherein the desalted and sterilized product is dried so as to obtain the milk fraction derived from the process of the invention in the form of a powder.

22. (Previously Presented) A milk protein fraction obtained by the process according to claim 1.

23. (Currently Amended) A milk protein fraction having the following characteristics:

- a protein content of greater than 90%,
- a mineral salt content of less than 1%,
- a fat content of less than 1%,
- a lactose content of less than 1%,
- a moisture content of less than 5%,
- a lactoferrin content of less than 80%,
- a ~~pH in~~ solution of the milk protein fraction with a concentration of ~~at~~ 2% has a pH of between 6 and 7.5,
- a UV-visible spectrophotometric purity defined by an $OD^{412}/OD^{280}$ ratio <0.15,
- contains at least 1% of proteins having an isoelectric point greater than or equal to 8, the percentages being given by weight relative to the weight of dry matter content of the milk fraction.

24. (Currently Amended) The milk protein fraction as claimed in claim 23, wherein it corresponds to at least one of the following characteristics:

- a protein content of greater than 95%,
- a mineral salt content of less than 0.5%,
- a fat content of less than 0.5%,
- a lactose content of less than 0.5%,
- a moisture content of less than 4%,
- a lactoferrin content of less than 80%,
- a ~~pH in~~ solution of the milk protein fraction with a concentration of ~~at~~ 2% has a pH of between 6 and 7.2,
- a UV-visible spectrophotometric purity defined by an $OD^{412}/OD^{280}$ ratio <0.1,
- contains at least 1% of proteins having an isoelectric point of between 8.2 and 8.7.

25. (Currently Amended) The milk protein fraction as claimed in claim 23 ~~it~~ which is derived from cows' milk.

26. (Previously Presented) The milk protein fraction as claimed in claim 25, comprising at least 40% of proteins having an isoelectric point greater than or equal to 8.

27. (Currently Amended) The milk protein fraction as claimed in claim 25 having a lactoferrin content greater than or equal to 30% and a lactoperoxidase activity greater than or equal to ~~120 ABTS~~ 120 2,2'-Azino-bis-(3-ethyl Benzo Thiazoline 6-Sulfonic acid) units per mg of isolate.

28. (Previously Presented) The milk protein fraction as claimed in claim 22 which is derived from a casein acid whey.

29. (Previously Presented) A combination of a milk protein fraction according to Claim 22 with calcium.

30. (Previously Presented) The combination as claimed in claim 29, additionally including vitamin D.

31. (Currently Amended) A food composition, comprising a milk protein fraction according to claim 22.

32. (Currently Amended) A dietary kit comprising a ~~powder of~~ milk protein fraction as claimed in claim 22 wherein said milk protein fraction is a powder.

33. (Previously Presented) A dietary milk prepared from a milk protein fraction as claimed in claim 22.

34. (Previously Presented) A food intended for the prevention of a pathology selected from: growth retardation, osteoporosis, bone fragility, bone fractures, rheumatism, osteoarthritis, periodontal diseases, and intestinal barrier deficiency, or intended to promote the growth of osteoblasts and/or of intestinal cells and/or to inhibit the growth of preosteoclasts, said food being prepared from a milk protein fraction as claimed in claim 22.

35. (Cancelled)

36. (Currently Amended) A pharmaceutical composition, comprising at least one milk protein fraction as claimed in claim 22 and a pharmaceutically acceptable carrier.

37. (Previously Presented) A medicament intended for the prevention and/or treatment of a pathology selected from: growth retardation, osteoporosis, bone fragility, bone fractures, rheumatism, osteoarthritis, periodontal diseases, and intestinal barrier deficiency, or intended to promote the growth of osteoblasts and/or of intestinal cells and/or to inhibit the growth of preosteoclasts, said medicament comprising a milk protein fraction as claimed in claim 22.

38. (Currently Amended) ~~The use of~~ A method for preparing a medicament intended to improve the absorption of calcium in the body of an individual, wherein said method includes the step of introducing a milk protein fraction as claimed in claim 22, ~~for the preparation of a~~ into said medicament ~~intended to improve the absorption of calcium in the body~~.

39. (Cancelled)

40. (Previously Presented) A hygiene product comprising at least one milk protein fraction as claimed in claim 22.